

Application No. 10/785,533
Response to Office Action

Customer No. 01933

Listing of Claims:

Claim 1 (Canceled).

2. (Currently Amended) The A molded lens of claim 1, for use in an optical pickup device, said molded lens comprising:

(a) a plane of incidence including a first optical surface;
(b) a plane of emergence including a second optical surface provided on an opposite side of the molded lens with respect to the plane of incidence; and

(c) an outer circumference surface having a shape formed by:
(i) a first straight line portion which is substantially parallel to a plane including an optical axis of the molded lens, (ii) a second straight line portion which is substantially parallel with the first straight line portion and is symmetric with the first straight line portion about the plane including the optical axis of the molded lens, and (iii) two circular arcs each connecting end portions of the first and second straight line portions;

wherein each of the first and second optical surfaces has a shape substantially corresponding to a respective circle having a center on the optical axis and having outer portions thereof cut off by the respective first and second straight line portions;
and

Application No. 10/785,533
Response to Office Action

Customer No. 01933

wherein the following numerical expressions are satisfied:

[[,]]

$$R_1 = R_2 \text{ and } 1 < H/R_1 < 2$$

where R_1 and R_2 represent respective radiiuses of curvature of the two circular arc portions respectively, and H represents a distance between peripheral portions of the first straight line portion and the second optical surfaces straight line portion.

3. (Currently Amended) The A molded lens of claim 1, for use in an optical pickup device, said molded lens comprising:

(a) a plane of incidence including a first optical surface;

(b) a plane of emergence including a second optical surface

5 provided on an opposite side of the molded lens with respect to the plane of incidence; and

(c) an outer circumference surface having a shape formed by:

(i) a first straight line portion which is substantially parallel to a plane including an optical axis of the molded lens, (ii) a

10 second straight line portion which is substantially parallel with the first straight line portion and is symmetric with the first straight line portion about the plane including the optical axis of the molded lens, and (iii) two circular arcs each connecting end portions of the first and second straight line portions;

15 wherein each of the first and second optical surfaces has a shape substantially corresponding to a respective circle having a

Application No. 10/785,533
Response to Office Action

Customer No. 01933

center on the optical axis and having fringe portions thereof cut off by the respective first and second straight line portions;
and

20 wherein the following numerical expressions are satisfied

[[,]]

$$R_1 = R_2, 1 < H_1/R_1 < 2 \text{ and } |H_1 - H_2| \geq 0.1$$

where R_1 and R_2 represent respective radiiuses of curvature of the two circular arc portions respectively, H_1 represents a distance 25 between the fringe portions of the first optical surface, and H_2 represents a distance between the fringe portions of the second optical surface.

4. (Currently Amended) A molded lens used for use in an optical pickup device, said molded lens comprising:

(a) a plane of incidence having including a first optical surface;

5 (b) a plane of emergence having including a second optical surface provided on an opposite side of the molded lens with respect to the plane of incidence; and

(c) an outer circumference surface having a shape formed by:

10 (i) a first straight line portion which is in substantially parallel substantially with to a plane including an optical axis of the molded lens, (ii) a second straight line portion which is in substantially parallel with to the first straight line portion

Application No. 10/785,533
Response to Office Action

Customer No. 01933

and is symmetric with the first straight line portion about the
plane of incidence including the optical axis of the molded lens,
15 and (iii) by two circular arcs each connecting end portions of
the first and second straight line portions; [[,]]

wherein the following numerical expressions are satisfied:

[[,]]

$$R1 = R2 \text{ and } 1 < H/R1 < 2$$

20 where $R1$ and $R2$ represent respective radiiuses of curvature of the
two circular arc portions respectively, and H represents a
distance between the first straight line portion and the second
straight line portion.

Claims 5-10 (Canceled).